

*Originally, this system was documented with two site numbers (B-249R-01 & B-249R-02)

SITE NUMBER: B-249R-01

LOCAL NAME: Hemphill

WRIA:

*This site does not have a WRIA number due to channel is in flood plain and fed by intermittent (winter) upper terrace trib

NORTH COAST OFF CHANNEL SITE INVENTORY DATA

RIVER SYSTEM: Bogachiel

DATE: 11/7/89

OBSERVER: Young

CHANNEL TYPE: The common, flat gradient, lower reach of several small valley wall tributaries (wall-based).

TRIBUTARY TO: Hemphill Creek - 20.0249

SITE LOCATION: L.B. @ River mile - 0.5 (field data)

LEGAL DESCRIPTION:

	UPPER END	LOWER END	RIVER TEMP
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<u>WATER TEMP:</u>	(No thermometer on day of survey.)		
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<u>FLOW (CFS):</u>	0.5	0.5 - 1.0	
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SUBSTRATE : Mud and silt. Well-vegetated along the lower reach.

SITE SIZE:

- Length-** Overall= 1150 m. Usable = 985 m.
- Width-** Surface = Lower 200 m = 25- 30 ft.
 - Mid and upper reaches = 3- 12 ft
 - Side Channel = Mostly shallow, pooled water @20-25 ft
 - Narrows to 2 to 4 ft in places.
- Channel = Lower 200 m = to 30 ft.
 - Mid and upper reaches = 5- 15 ft
- Depth-** Maximum = 1 to 2 ft. Avg = < 6 inches.

WATER SOURCE: May be primarily run off water from the steep hillside to the southeast of the channel. Possibly some minor spring activity.

DIRECTIONS TO SITE: Head north of Grays Harbor on Hwy 101. Turn right just south of m.p. 184 onto the S. Bogachiel Rd. Proceed east on this gravel road 2.5 miles until coming to the W.D.W. boat launch (just east of the Hemp Hill Cr. bridge). Follow a private road at the east end of the boat launch area into a small, rural, residential area & open pasture. Hemp Hill Cr. lies just south of the open field. B-249R-01 lies south east of the field. Also accessible with 4WD by turning east off Hwy 101 0.1 mi. south of m.p. 181 onto a logging road. Follow this road staying left at each major fork. The second left after crossing Hemp Hill Cr. is an older grade which heads down over the hill to the valley floor (see site direction map).

FISH ACCESS AND CURRENT USE: Good access from Hemphill Creek. No fish were seen but some should be present. Channel may be subject to extensive drying during normal winter dry spells.

FLOODING POTENTIAL: Low.

LANDOWNER: Unknown at this time.

COMMENTS & RECOMMENDATIONS: B-249R-01 joins with Hemp Hill Creek just downstream of the creek's alluvial fan and enters the creek on the outside of a hard (90 degree) bend. The lower 215 m of B-249R-01 is quite wide, well vegetated with marsh grass, and contains a good deal of shallow, pooled water. A 15 to 20 ft terrace wall runs along the left bank of the channel. The right bank is flat.

At the upper end of this lower reach, B-249R-01 and the high left bank make an abrupt turn to the east. The channel narrows as it runs through a small "cut". After flowing out of this "cut" and entering the wider

channel downstream, the water spreads out and flows in two directions. The majority of the water flows continues on into the lower reach of B-249R-01. The remainder flows into a side channel of B-249R-01.

The side channel is a wide, shallow, well-vegetated depression which has the appearance of an old, inactive river overflow channel. A 6 to 8 ft high terrace edge forms the left bank. The right bank is flat. The water surface width in this reach was 20 to 25 ft and maximum water depth was 1 to 1.5 ft. Both depth and width appeared to be at or near winter maximums.

Near the upper end of this lower reach the gradient increases slightly as the side channel switches back, cuts through the terrace edge (on the left bank) and up onto the small bench-like terrace. In this short, transitional, middle reach, the channel again narrows to 3 to 4 ft.

On top of the bench, the gradient flattens and the channel widens once again. The channel runs along the back edge of the bench and along the base of a second 6 to 8 ft high terrace edge for some 200 meters. Though more shallow, the character of the side channel here is very similar to that of the lower reach.

At the upper end of this reach, the side channel merges with the main channel of B-249R-01. Water from the latter channel flows through a cut along the back edge of the small bench, into a wide, shallow grassy area and then in two directions. The majority of the water continues flowing down main channel while the rest flows into the side channel. Thus the side channel appears to function as an overflow to B-249R-01. The two channels have separate mouths and it appears that they may not be connected at flows slightly lower than present. The side channel also appears to have a much greater risk of drying up during normal winter dry spells than does the main channel.

In its middle reach, B-249R-01 continues along the base of the 10 to 15 foot high terrace (on the left bank) for some 370 m. Here the channel remains relatively narrow (5 to 15 ft wide) and takes on a much more "stream-like" appearance. Two small, steep tribs enter from the high left bank in the mid and upper reaches of the middle reach. An old grade, that runs parallel to the LB of B-249R-01 (on top of the terrace), crosses the channel at the upper end of the middle reach. A 3 ft high hanging culvert at the old grade crossing prohibits the upstream migration of juvenile coho above that point.

A short distance above the culvert the gradient increases and the channel diverges into a number of smaller channels which run off the steep hillside. Only a limited amount of potentially usable habitat was seen in this upper reach (i.e. above the culvert).

About 50 to 60 m south of the culvert on B-249R-01, and just east of the old grade, is a small, U-shaped marsh. The marsh is very shallow and filled with marsh grass. No areas of open water were seen.

Culverts at both ends of the U-shaped marsh allow water to pass under the old grade. Water leaving the marsh forms the two small LB tribs that were seen entering in the upper middle reach of B-249R-01. The elevation of the small marsh appears to be some 10 to 15 ft higher than B-249R-01. Since the egress channels have a very steep gradient, the marsh is not accessible to juvenile coho.

Just north of the culvert on B-249R-01, and east of the old grade, is a wide, shallow, wall-based depression. At the time of this survey, this mucky-bottomed channel held a good deal of very clear and shallow, standing water. A semi-functional culvert at the old grade helps to form the shallow pond. Downstream of the culvert the channel (dry at present) is very poorly defined. While the egress route is unclear, it does not appear that water from this channel flows into B-249R-01. If not for the old grade and culverts this wall-based depression would be probably be considered a continuation of B-249R-01.

With the mouth of B-249R-01 located just below the alluvial fan of Hemp Hill Creek, it seems likely that coho seeking out those rearing areas furthest upstream would tend to move into B-249R-01 rather than into the steep gradient reaches of the creek. If this is the case, B-249R-01 may attract many coho. Some attempt should be made to determine the current extent of habitat utilization.

A good deal of rearing area is presently available in B-249R-01. Need to observe B-249R-01 throughout a normal winter to determine minimum and maximum flows. Should minnow trap to determine the extent of current coho utilization. May be able to divert more water from the main channel into the side channel to maintain winter flow or may wish to divert all water away from the side channel and into the main channel in order to discourage fish from entering the side channel.

NORTH COAST OFF CHANNEL SURVEY
SUBSEQUENT SITE EVALUATION FORM

River System: Bogachiel

Channel No.: B-249R-01

Local Name: Hemphill

WRIA: This site does not have a WRIA number

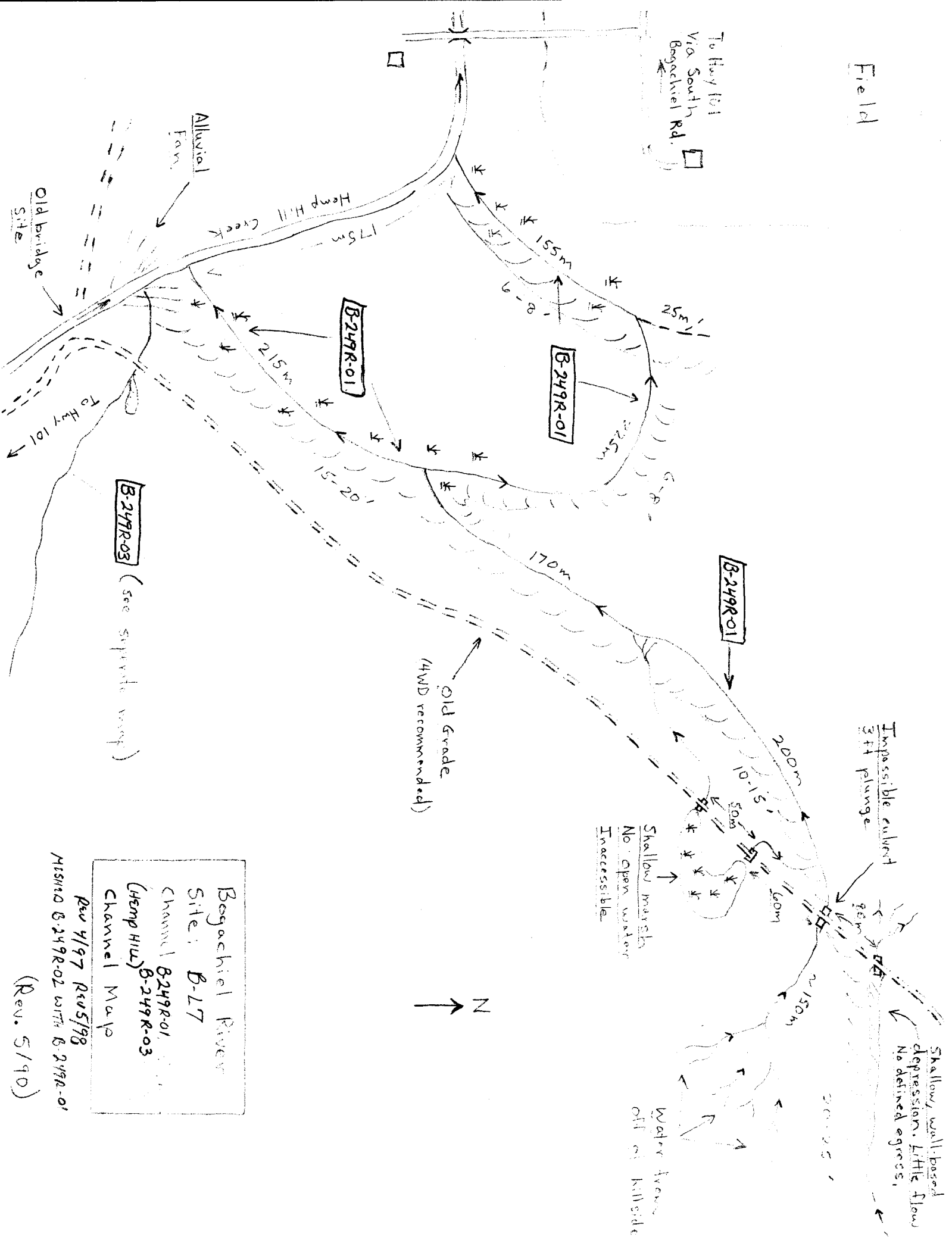
due to channel is in flood plain and fed by intermittent (winter) upper terrace trib

Date: 4/3/90

Has not rained for 2 weeks. Channel is mostly dry except for a few areas of shallow water. An additional water source was found flowing into Hemphill Creek just upstream from the mouth of B-249R-01. This flow originates to the south of the old access road and crosses at a depression in the road. An old culvert was nearby that appeared to have plugged at one time and was removed.

Field

To Hwy 101
Via South
Bogachiel Rd.



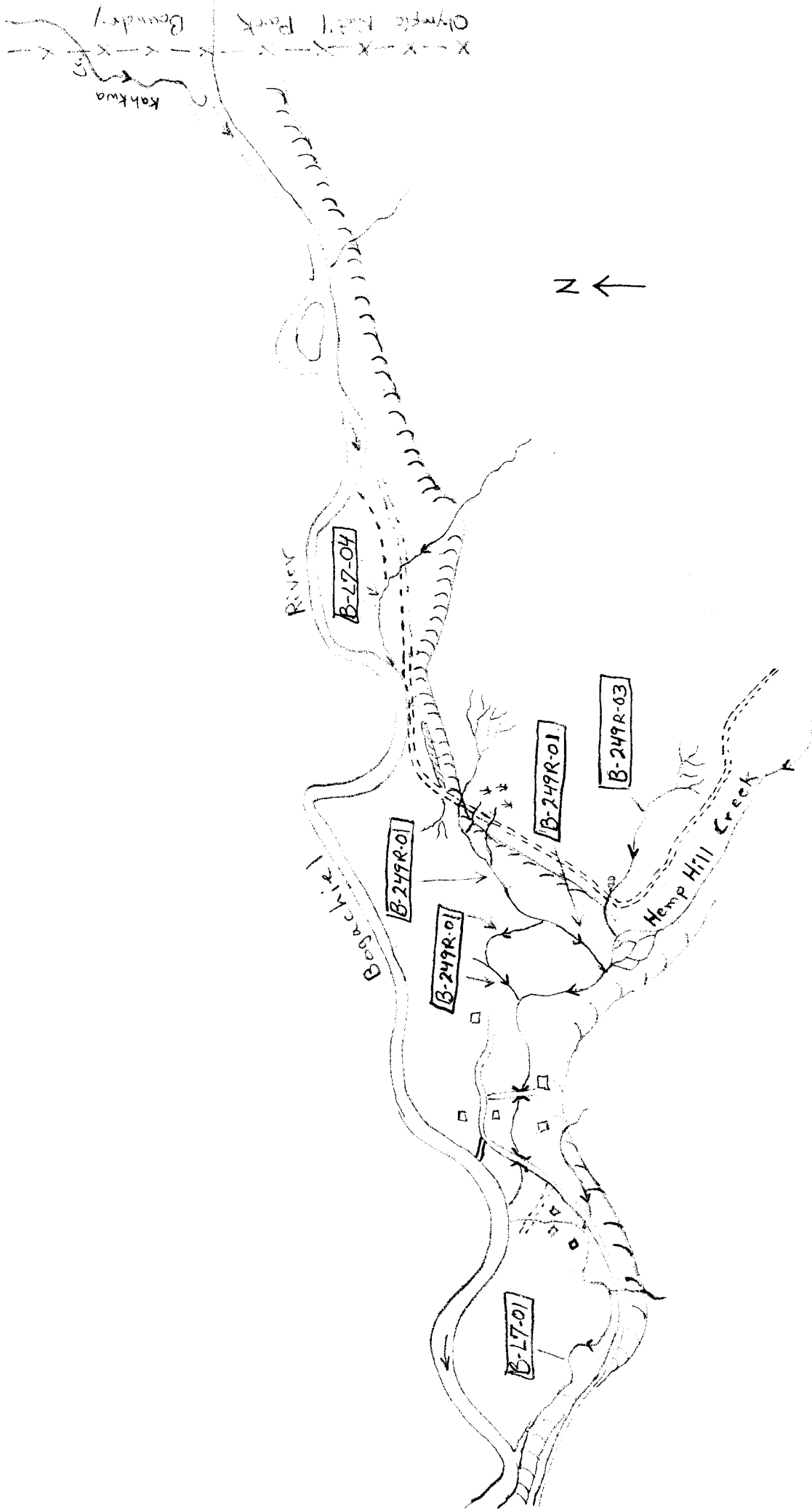
B-249R-03 (see separate map)

Bogachiel River
Site: B-27
Channel B-249R-01, B-249R-02, B-249R-03
(Hemp Hill)
Channel Map

Rev 4/97 Rev 5/98

Mismo B-249R-02 with B-249R-01

(Rev. 5/90)



Bogachiel River

Site: B-17

Overview Map

Revised B-249R-02 (misno w/B-249R-01)

Dec 4/97 Rev 5/99

(Rev. 5/90)

Bogachiel River

Site: B-17

Site Map

